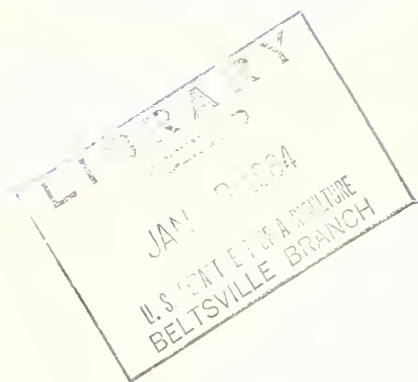


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



DRIVE-IN DAIRIES IN CENTRAL CALIFORNIA

- Development,
Organization,
and Operation

U. S. DEPARTMENT OF AGRICULTURE
Economic Research Service
Marketing Economics Division

CONTENTS

	<u>Page</u>
Summary	iv
Introduction.	1
Factors influencing development of drive-in dairies	1
Farm production	1
Regulation	3
Economic conditions.	4
Organization and operation of drive-in dairies	5
Initiators	5
Form of organization	6
Requirements for and sources of capital	6
Location	6
Milk procurement	7
Operating practices	7

December 1963

SUMMARY

Drive-in dairies increased their total share of Class I milk sales in Central California from less than 2 percent in 1957 to over 6 percent in 1962. Future gains, however, will depend largely upon the extent of competition offered by retail grocers and other market outlets. Relaxation of pricing regulations to permit retail grocers to sell milk at discount prices could retard growth in the share of the market obtained by drive-ins.

A major factor contributing to the growth of drive-ins in California was State regulation of milk prices. Development of drive-ins outside of California would most likely be based on the competitive abilities of the new type of marketing system in a given area. It is unlikely that drive-in dairies would achieve more than a token share of all milk sales in any market, because of the competition of conventional marketing systems.

There are two main types of drive-in dairies--ranch and dock. Ranch drive-ins combine production, processing, and retail sales facilities at the dairy ranch. Dock drive-ins combine the processing and retail sales facilities at a non-ranch location. Ranch drive-ins predominate in Southern California, whereas dock drive-ins prevail in Central California.

Favored locations for drive-ins are: (1) on the outgoing side of a volume-traffic commuters' thoroughfare, or (2) adjacent to a shopping center serving a reasonably well-defined residential area. Preferred thoroughfare locations are at intersections just past a traffic signal.

Drive-in dairies are an innovation for marketing dairy products just as drive-in movies and drive-in restaurants were innovations for marketing their respective services. All feature in-car service to their customers. Uniformed attendants at drive-in dairies serve customers who drive up to either side of a central platform. The attendant takes the customer's order and loads the desired merchandise into the customer's car. The customer then drives to the end of the platform to pay a cashier for the items purchased.

To a limited extent, some producers, processors, distributors, and consumers can benefit from drive-in dairies. Producers would have additional market outlets through which they could sell more Class I fluid milk and thereby increase their gross returns over what they would have received through a conventional marketing system. Processors and distributors, through vertical integration, could possibly have lower unit costs and higher overall net returns than they would have if each step of the marketing system was operated as an independent enterprise. Consumers could buy their milk and milk products generally for several cents less from drive-ins than from conventional distribution outlets such as retail grocers or home-delivery routes.

DRIVE-IN DAIRIES IN CENTRAL CALIFORNIA

Development, Organization, and Operation

By Jack E. Klein and Leo R. Gray
Agricultural Economists,
Marketing Economics Division

INTRODUCTION

The development of a new marketing institution is always a matter of interest. Questions arise as to the role which it may play in the market, its advantages and disadvantages as compared with other marketing institutions, and the impact it may have on other marketing agencies, producers, and consumers.

The drive-in dairy in California is not a new institution, but its growth in recent years qualifies it for attention. In 10 counties surveyed in Central California, the number of drive-ins increased from 1 in October 1952 to more than 72 by the middle of 1961. In April 1960, 62 drive-ins were officially listed in the 10-county survey area (fig. 1). Their sales increased from 1.8 percent of fluid milk sales in January 1957 to 6.4 percent in January 1962 (fig. 2).

California drive-in dairies are an adaptation of a marketing institution which has been active for many years. Sales have been made at dairy processing plants for years, but were relatively unimportant until recently. The drive-in feature was added, making it possible for consumers to obtain milk and other products without leaving their cars. New establishments were opened at convenient highway locations. These features, with the price differential allowed by California regulations for sales at the plant where the milk is processed, were key elements in the growth described above.

There are three general types of drive-in dairies. Ranch drive-ins combine sales, processing, and milk production facilities in one location. Dock drive-ins combine only sales and processing facilities, with milk coming from farms located elsewhere. There are also some drive-ins selling milk processed elsewhere at the same prices as those in grocery stores. Ranch drive-ins predominate in Southern California and dock drive-ins in Central California. Some of the reasons for these differences are discussed in the following section.

FACTORS INFLUENCING DEVELOPMENT OF DRIVE-IN DAIRIES

Farm Production

In Central California, milk production conditions favor use of pasturage and home-grown feeds, especially roughage. In Southern California, dry-lot dairying relying entirely on shipped-in feeds predominates. Favorable production areas in Central California are further from population centers, so that extensive sales at the ranch could hardly be expected. Instead, milk was typically delivered to conventional city distributors, condenseries, or cheese plants. The separation of production and distribution facilities has been carried over into the development of dock drive-ins in Central California.

LOCATION AND NUMBER OF DRIVE-IN DAIRIES



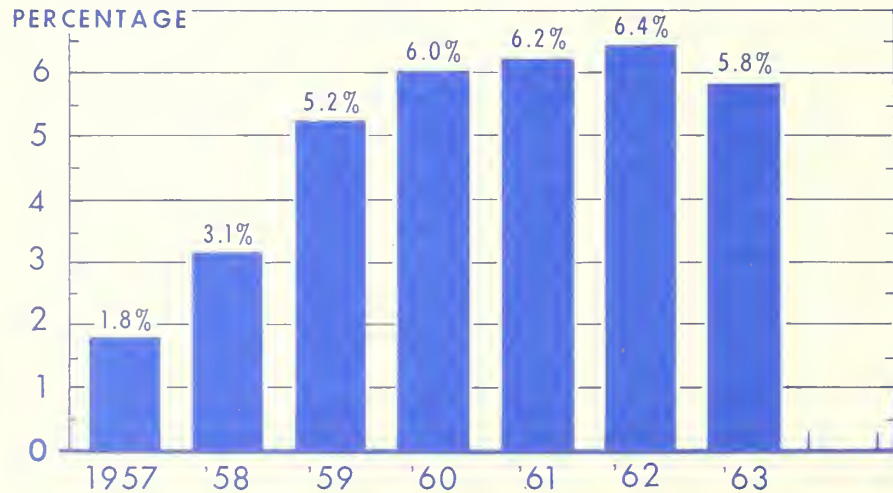
U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2351-63 (10) ECONOMIC RESEARCH SERVICE

Figure 1

As % of Total Milk Sales, Central California

DRIVE-IN DAIRIES' SHARE OF MILK SALES



JANUARY DATA.

U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2352-63 (10) ECONOMIC RESEARCH SERVICE

Figure 2

The milk supply developed faster than demand in Central California. Although Southern California reaches into the area for part of its marginal milk supply, a substantial volume of Grade A milk is diverted into manufacturing use. There is, therefore, an uncommitted supply of surplus milk available for the fluid market.

Regulation

Price controls.--California's dairy industry operates under a minimum price law administered by the State Department of Agriculture. Controls over prices paid to producers were established in 1935, followed by regulation of wholesale and retail prices in 1937. The law provides that payments be based upon the end use of the product (i.e., classified pricing) and that retail prices of fluid milk and cream be established for each authorized distribution method related to cost incurred and other specified economic factors. By 1940, a price schedule had been adopted in one market area that provided a differential between retail prices at grocery stores and at the processing plant. Similar price schedules were authorized in several other market areas within the next 2 years. All had been withdrawn by the end of the forties.

At the time of this study, drive-ins in the East Bay area (Alameda and Contra Costa counties) had a 2-cent price differential compared with grocery stores and a differential which declined from 7.5 cents for 1 quart to 2.5 cents for 6 or more quarts compared with home-delivered milk (table 1).

Table 1.--Price per quart of milk purchased from drive-ins, grocery stores, and home delivery routes, East Bay area, California, 1960

Size of purchase :	Drive-ins :	Grocery stores :	Home delivery :
<u>Quarts</u> :	<u>Cents</u>	<u>Cents</u>	<u>Cents</u>
1.....:	23.0	25.0	30.5
2.....:	23.0	25.0	28.0
4.....:	23.0	25.0	26.8
6 or more.....:	23.0	25.0	25.5

The increase in sales of drive-in dairies between 1957 and 1962 was made largely at the expense of the market shares of other outlets, although growth in the total market was greater than growth in sales of drive-in dairies. Competing outlets such as retail grocers showed increased concern over the inroads and competition offered by drive-ins. Pressures by these outlets resulted in changes in pricing regulations so that they could more effectively compete with the lower prices offered by the drive-ins. With a reduced price differential between drive-ins and grocery stores, the drive-in share of milk sales declined from 6.4 percent in January 1962 to 5.8 percent in January 1963.

Some people consider that legal restrictions on economic forces affecting the dairy industry have been a basic factor in introducing drive-in dairies into the milk market structure. Generally, such a conclusion is based upon the control agency's authority to establish minimum prices for fluid milk and cream at each market level for each defined method of marketing. This control prohibits price competition while allowing a price advantage to certain methods of sale because established

prices must be related to costs incurred as well as other economic considerations. Since drive-ins have low costs for handling and distribution, their selling price can be lower than that of other outlets. Although a protected sales price affords drive-ins an obvious advantage and has been a major factor in their growth, it is not the entire explanation, as will be seen in later sections of this report.

Milk classification.--Another important condition arising out of the control legislation is the classification of milk produced for the fluid market according to its use. Milk in Class I is used for fluid milk and receives the highest price. A contract between the producer and the distributor is required if a distributor purchases 200 or more gallons of milk from any producer within a calendar month. This contract must stipulate the minimum volume of milk that will be purchased and the proportion which will be paid for at the Class I price. ^{1/} Buyers may and do vary their agreements among producers, so some producers have a very low Class I percentage in their contracts.

Milk production in California has increased substantially in recent years and the proportion of market grade milk that exceeds Class I requirements has also increased. Approximately 25 percent of the market grade milk in California was surplus and was diverted to manufacturing uses at lower than Class I prices in 1962. ^{2/} More than half of the milk available for manufacturing uses in California came from this surplus of market grade milk. As a partial result of this continued surplus situation, some producers sought to increase the average (blend) price received for their milk. Under a system of classified pricing and administered prices, this could be done only by increasing the proportion of market grade milk sold for Class I use. Efforts to increase average prices received for market grade milk without violating the price regulations were probably a major stimulus to the introduction and growth of drive-in dairies in Central California.

Economic Conditions

Interests of both producers and consumers contributed to the development of dairy drive-ins. Producers were interested in increasing their returns by obtaining higher average prices for all of their milk. Many consumers were attracted by the price appeal or convenience of the drive-ins. Without the price differential permitted between drive-ins and other sellers, drive-ins probably would not have been able to attain their present importance.

Few farmers in the 10-county survey area of Central California produce milk of other than market grade. Practically all surplus milk produced in the area is suitable for Class I use in fluid milk or cream products.

Two factors affecting the attractiveness of drive-ins to consumers are service and quality of the milk. The usual service has four aspects that attract people: (1) The customer does not leave his car, (2) complementary dairy products and convenience items are available, (3) service is prompt, and (4) the location is convenient. The butterfat and solids content of milk sold by drive-ins tends to be higher than that for milk sold by other distributors, thereby increasing its attractiveness to

^{1/} These are minimum quantities permitting a buyer to increase purchases, but he must pay for all purchases in accordance with their use.

^{2/} Dairy Information Bulletin, California Crop and Livestock Reporting Service, March 1963.

those consumers who can detect the difference. Drive-ins generally do not standardize the butterfat content of their milk within the 3.5 to 4.2 percentage range permitted by State regulations, as do some other distributors.

Probably there are practical reasons why drive-ins generally do not standardize their milk. Their small volume of sales--generally less than 400 gallons per day--would not provide a supply of cream sufficient to compensate for the costs of separation and diversion to a wholesale buyer. Separation of fluid milk into skim milk and cream is limited to that quantity needed to supply their own needs for these products. Any surplus of skim milk or cream is incorporated again into the raw milk supply.

In recent years there has been a shift in consumers' shopping habits. Many people buy most of their food during a weekly trip to the supermarket. However, they often prefer not to bring home a whole week's supply of milk and perhaps bread at one time. The drive-in provides a convenient source of these products for consumers, many of whom pass drive-in locations every day on their way from work, school, or community activities.

ORGANIZATION AND OPERATION OF DRIVE-IN DAIRIES

Initiators

Nearly 90 percent of the drive-ins in the sample were organized by people with prior industry experience (table 2). ^{3/} Half of this group were former employees of milk distributors. Apparently, the major incentive for these employees was an opportunity for an investment. Organizers of 43 percent of the drive-ins were milk producers, whose basic interest may have been to improve their marketing situation rather than to invest in an off-farm business.

Table 2.--Form of organization and prior industry experience of organizer, drive-in dairies, Central California, 1960

Industry experience of organizer	Form of organization				
	Corporation	Single pro- prietorship	Partner- ship	Cooperative	Total all firms
	<u>Firms</u>	<u>Firms</u>	<u>Firms</u>	<u>Firms</u>	<u>Firms</u>
Employee of a dis- tributor.....	21	1	5	--	27
Producer.....	4	7	4	4	19
Producer-distributor..	--	5	2	--	7
None.....	2	4	1	--	7
Total.....	27	17	12	4	60

^{3/} Data for this survey were obtained from 60 of the 62 drive-ins in Central California in 1960.

Form of Organization

The form of business organization of drive-in dairies in Central California appears to have been influenced considerably by the organizer's prior interest and relationship to the dairy industry. Twenty-one of the 27 corporations were organized by former employees of milk distributors (table 2). Eighteen of the 29 single proprietorships and partnerships were organized by producers or producer-distributors. Organizers with prior experience as producers were the only ones who selected the cooperative type of ownership.

Integration of ownership or coordination of management through chain operation was a significant factor in the development and growth of drive-ins in Central California. Six chains operated 22 of the 60 drive-ins surveyed. The largest chain operated 9 drive-ins, another had 5, and the remaining 4 operated 2 drive-ins each. Chains provide an opportunity to increase the span of management and to spread labor over more units of product. Each chain had expanded from a single drive-in. Although producers had invested capital in some of the chain drive-ins, such arrangements did not usually give them a preferred position as suppliers.

Requirements for and Sources of Capital

Total investment in drive-ins ranged from \$50,000 to \$200,000 each. Those with higher investments were located in choice trade areas commanding higher land prices and requiring more pretentious physical facilities. Some of the higher-valued drive-ins supplied milk or processed dairy products to other distributors, in addition to processing their own requirements.

Requirements for operating capital were usually small, except for purchases of containers, because sales were for cash and producers were paid every 2 weeks. Most supplies were available locally and purchased on credit to meet short-term needs. Containers were usually bought in carload lots because of: (1) quantity discounts, (2) pricing f.o.b. supplier's plant, and (3) special lettering on containers for each drive-in. Expenditures for glass bottles were partially offset by deposits required of customers.

Drive-in dairies obtained long-term capital from varied sources. Twenty-eight held title to their land and buildings, although these may have been encumbered. Two others had negotiated long-term land leases and constructed their own buildings. The remaining 30 had lease arrangements under which the landowner constructed buildings to the lessee's specifications. All leases on land and buildings required a fixed monthly rental, except for one whose rent was based on a fixed percentage of gross sales.

Fifty-nine of the drive-ins owned their equipment. The one exception was an established operator who leased a complete plant that was owned by a group of producers. Sometimes "owned equipment" also was encumbered with a lien or held under a conditional sales contract.

Location

Two general types of location that have been successful for drive-ins are: (1) On the homeward-bound side of a heavily traveled commuter thoroughfare, or (2) adjacent to a shopping center serving a well-defined residential area. Preferred

thoroughfare locations are at intersections just past a traffic signal, to expedite traffic flow through the drive-in and back into the traffic stream. Sites such as these are convenient and readily accessible to passers-by, and numerous customers are attracted to them. Most such locations were found in urban areas where ranch drive-ins were not allowed under zoning regulations.

Drive-ins generally consider the most favorable market prospects to be consumers who live within close driving distance or who pass the store at least once a day. Both the direction and timing of traffic flow are important considerations for a good site, with the flow toward home in the evening offering the greatest sales potential. Sites adjacent to new subdivisions are preferred because such areas tend to be populated by younger families with small children. These families are important milk consumers and usually have developed no loyalty to another outlet.

Milk Procurement

Some drive-in dairies were integrated vertically. Twenty of the sample drive-ins obtained their milk from herds where there was some degree of common ownership. Seven of these were ranch drive-ins located adjacent to expanding population areas and apparently set up to serve the growing market areas. The other 13 integrated outlets were dock drive-ins. Forty of the sample drive-ins were not integrated. Eighteen of these obtained their milk supply direct from independent producers. The remaining 22 were supplied by other distributors or receiving stations.

Operators of drive-ins were able to make reasonably close estimates of their needs from week to week and sometimes on a shorter basis. They varied the size of purchases, buying and processing milk in quantities required to meet anticipated needs. Since milk production cycles tend to be stable for short periods, when herds produced quantities in excess of market demand, producers had problems in disposing of milk. Some drive-in operators encouraged their suppliers to buy or sell cows in order to balance requirements and supply either for total quantity or for butterfat content.

Operating Practices

Size of operations.--Typical daily milk receipts at 52 drive-in plants ranged from 100 to 6,000 gallons and averaged 603 gallons (table 3). Typical daily milk sales at 44 drive-in plants ranged from 100 to 650 gallons, and averaged 383 gallons. Eight of the drive-in plants averaged 1,000 or more gallons a day in milk receipts, but these plants were solely supplying plants for drive-in sales facilities located elsewhere. Eighty-five percent of the drive-ins had daily plant receipts averaging 650 gallons or less.

Processing of milk.--Most drive-ins processed their milk every other day (table 4). Choice of processing schedules and the length of each processing period were determined by various factors, including sales volume, output desired each processing period, rate of processing, storage capacity, number of different products processed, and the time required to change from processing one product to another. Processing periods reported by drive-ins in the sample varied from 2 to 10 hours. Operators tried to equalize their processing periods by increased processing during periods of less-than-average sales and storing for periods of greater-than-average sales. Slow-moving products were processed intermittently and stored for later sale.

Most operators purchased only enough milk to meet their anticipated short-term needs. For 22 drive-ins, these needs included fluid milk and cream products for sales

Table 3.--Milk receipts and sales, by size groups, drive-in dairies,
Central California, 1960

Typical daily volume	Receipts	Sales <u>1/</u>
<u>Gallons</u>	<u>Dairies</u>	<u>Dairies</u>
100-250.....	20	22
300-450.....	15	16
500-650.....	9	14
1,000-6,000.....	8	0
Total.....	52	44
	<u>Gallons</u>	<u>Gallons</u>
Average volume.....	603	383

1/ Does not include byproduct sales, fluid milk, or other sales made on delivery routes, or interdistributor transfers. Since a few large drive-ins serve as suppliers to smaller ones, there is some double counting.

Table 4.--Frequency of processing milk in drive-in dairy plants, by number of
plants reporting, Central California, 1960

Times per week	Number of plants
3	16
3½	23
4	3
5	8
6	5
7	5
Total.....	60

on the premises plus requirements for their wholesale or home delivery routes. Eight drive-ins received more milk than they needed; 6 processed their surplus milk into ice cream or ice cream mix for their own use or resale. The other 2 disposed of at least part of their surplus to other drive-ins as partially processed milk (i.e., standardized for butterfat content and clarified). Only 2 drive-ins regularly disposed of their surplus milk or cream to manufacturing plants.

Quality control.--Drive-ins in the East Bay area appeared to be more concerned with quality control than those in other parts of Central California. Most drive-ins in

these two counties subscribed to a commercial quality control testing program in addition to supervision by local public health officials.

Operators indicated that their interests in a commercial testing program were based on a desire to maintain their product standard as a means of promoting customer loyalty. Also, some drive-ins were either so distant from their source of milk supply or so small that the cost of fieldmen was prohibitive. In addition, the testing concern was available for consultation on plant problems. Most drive-ins preferred not to do their own testing because it would tend to (1) limit their volume, (2) require specialized equipment and training, and (3) increase their workload and responsibility.

Labor.--Utilization of labor varied among sizes and types of drive-ins. Small, single-unit drive-ins tended to use each person in several capacities as needed, whereas large single-unit drive-ins used specialized labor for their major volume operations. Some chain drive-ins sought to achieve labor economies by rotating specialized processing crews from one plant to another, processing for a few hours in each one.

In some of the counties surveyed, wage rates were established by union contracts. Wage rates for union labor tended to be above the average for the 10-county area and were competitive with those for alternative employment opportunities. Union laborers were typically employed on a full-time basis, particularly those in processing and packaging operations. Drive-ins not having union contracts often hired part-time employees to help during rush periods.

Container costs and deposits.--Drive-ins paid about 5 times as much for glass containers as for nested paper containers. Glass containers, imprinted in color with the name and related information about the drive-in, cost the drive-in from 11.0 to 17.0 cents each for the quart size and from 17.0 to 38.0 cents for the half-gallon size. Nested paper containers cost from 2.2 to 3.2 cents for the quart size and 4.9 to 6.0 cents for the half-gallon size. Variations in costs per unit resulted from differences in volume discounts and shipping costs.

On the basis of average lifetime costs per unit packaged, glass bottles cost substantially less than paper containers, because they could be used repeatedly. Operators of some drive-ins reported they sometimes used their glass bottles as many as 60 times.

All Central California drive-ins required deposits on glass bottles, usually 5 or 10 cents for quart bottles and 10 or 15 cents for half-gallon bottles. Drive-ins located near one another tended to charge similar bottle deposits as an aid to bottle exchange. However, most of the drive-ins in the area were widely dispersed, partly because they had to penetrate already existing markets. As a result, competition was minimized among the drive-ins as well as between the drive-ins and other sales agencies, and there was little pressure to eliminate or reduce bottle deposits.

Most operators discounted the idea that deposits required on glass containers tie a customer to a particular drive-in, because the bottles may be exchanged readily at other drive-ins.

Container use.--Ninety-five percent of the milk sold at 44 drive-ins was in glass containers (table 5). Among the unit sales in glass containers, 63 percent of the units and 75 percent of the volume were sold in half-gallon jugs. Another study, by Field,

Table 5.--Average daily unit sales of fluid milk by 44 drive-ins, by container type and size, Central California, 1960

Container type and size	Unit sales	Percent of--	
		Total units	Total volume
Glass:			
Gallons.....	204	0.6	1.4
Half gallons.....	22,155	63.4	75.4
Quarts.....	10,874	31.1	18.5
Paper:			
Half gallons.....	1,060	3.0	3.6
Quarts.....	634	1.8	1.1
Total.....	34,927	100.0	100.0

indicates glass half-gallon containers accounted for 82 percent of the units and 86 percent of the milk sold by drive-ins in the East Bay area. ^{4/}

Drive-in operators gave two main reasons for preferring glass containers over paper containers: (1) glass containers cost less per unit packaged, and (2) operators thought some customers continued to prefer glass.

Specialized services.--Systems of in-car services to customers have developed largely since World War II and are employed in widely differing lines of business. These marketing techniques are used principally by establishments offering a single or limited number of specialized, standard services. Leading examples are drive-in restaurants, movie theaters, and banks.

The trend toward increased purchases of food in large supermarkets in some respects went counter to the trend to more specialized services. It usually involved less frequent shopping--often once a week--and at times long waits in checkout lines, an inconvenience not always solved by the express checkout line. The drive-in dairy offered a solution to these problems as well as the more general appeal of the drive-in business.

In addition to fluid milk, dairy drive-ins offer other milk products and fresh fruit drinks which they process in their plants. Other dairy items usually offered for sale include ice cream, butter, and cheeses. Most drive-ins also sell such items as margarine, eggs, bacon, bakery goods, cigarettes, carbonated soft drinks, potato chips, and nut meats.

Typically, customer service is by uniformed attendants who take items from storage racks and place the products in the car before payment. Generally, two or more lines of traffic are handled during rush hours and, on occasion, two attendants may service one line. Rapid service is attained by three major factors: (1) the attendant's

^{4/} Field, Barry C. "Customer Purchases of Fluid Milk in Grocery Stores and Dairy Drive-ins, with Special Reference to the Alameda-Contra Costa Marketing Area." Calif. Agr. Expt. Sta., March 1961, pp. 21-23.

familiarity with the storage location of each item, (2) restricting the number of products sold, and (3) channeling customers past a convenient sales point.

Estimated values of typical drive-in sales ranged from \$0.85 to \$2.50. Nine operators estimated that their typical sales were about \$1.25, 6 said \$1.35, and another 9 reported \$1.50. These estimates are for sales of all products including fluid milk.

In-car customer services were not the only functions of the 60 drive-ins sampled. Twenty-two operated or supplied dairy products for one or more retail home delivery routes and four operated one or more wholesale routes. Drive-ins with paper packaging equipment actively sought school milk contracts.

Advertising.--Advertising media used and the extent of sales promotion varied among drive-ins. Typical methods of advertising included newspapers, radio, handbills, calendars, and door hangers. Most operators preferred media that could be directed toward a specific audience because of geographical limitations on the potential market for a given drive-in.

Typical annual expenditures for sales promotion were about \$500 for established drive-ins. However, larger amounts were probably spent by firms having special "grand opening" sales promotions to introduce a new outlet.

